

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 024754-0114

In re patent application of

Ke-Wen DONG, et al

Serial No. 09/252,828

Group Art Unit: 1641

Filed: February 19, 1999

Examiner: Lisa Cook

For: RECOMBINANT BIOLOGICALLY ACTIVE HUMAN ZONE PELLUCIDA
PROTEINS 3 (HZP3) TO TEST MAIL FERTILITY

SECOND PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Further to the CPA and preliminary amendment filed June 17, 2002, the preliminary remarks filed August 14, 2002, and the response to the restriction requirement filed September 27, 2002, applicants, prior to examination, request amendment of the claims as follows.

Please substitute claims 57, 58, 65-68 with the following version of the amended claims. Changes made to the amended claims are shown in the attached Marked-Up Version of the Amended Claims. For the examiner's convenience, attached as Appendix I is a complete set of the claims, as amended.

57. (Amended Once) A purified recombinant glycopolypeptide of 65kd to 100kd that comprises 40% to 60% carbohydrate by weight and that binds human spermatozoa at least 10 times as strong as an equivalent molar amount of mouse ZP3, wherein the glycopolypeptide is obtainable by a process comprising the steps of:

- (a) transducing a cell from a human ovarian cell line with a polynucleotide that encodes a polypeptide comprising a sequence that is more than 54% homologous with SEQ ID NO: 2;
 - (b) establishing a stable-transfected cell culture for producing the glycopolypeptide;
- and

(c) isolating the glycopolyptide from the cell culture.

K1
cont

58. (Amended Once) The purified glycopolyptide of claim 57 wherein the ovarian cell line of step (a) is selected from the group consisting of PA-1, EB2, CaoV-3, CaoV-4 OVCAR-3, SKOV-3, and SW 626.

Sub 3

~~65. (Amended Once) A purified glycopolyptide of 65kd to 100kd that binds human spermatozoa at a glycopolyptide concentration below 1 μ g/ml and induce an acrosome reaction within one hour upon binding, wherein said glycopolyptide comprises an amino acid sequence that is more than 54% homologous to sequence SEQ ID NO: 2.~~

Sub 4

~~66. (Amended Once) A glycopolyptide comprising between 41 and 400 amino acid that binds human spermatozoa at a glycopolyptide concentration below 1 μ g/ml and induce an acrosome reaction within one hour upon binding, wherein said glycopolyptide comprises an amino acid sequence that is at least 54% homologous to SEQ ID NO: 2, and wherein the fifth amino acid residue from the carboxyl terminus of said amino acid sequence of said glycopolyptide is O-glycosylated.~~

K2

67. (Amended Once) The glycopolyptide of claim 66, wherein said glycopolyptide comprises an amino acid sequence that is at least 75% homologous to sequence SEQ ID NO: 2.

68. (Amended Once) The glycoprotein of claim 66, wherein the glycoprotein comprises the following amino acid sequence SEQ ID NO: 2.

REMARKS

Applicants have amended the claims to correct a few informalities and aid the Examination process. Claim 57 has been amended to correct the spelling of glycopolyptide and claim 58 has been amended to remove the space between Cao and V for the term Cao V. Claims 65-68 have been amended to remove the explicit recitation of the polypeptide of SEQ ID NO: 2, which is redundant because SEQ ID NO: 2 is already recited in the claims.

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Serial No. 09/252,828

Art Unit: 1641

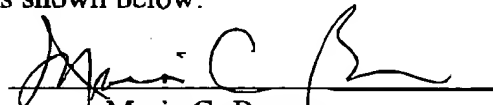
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